

IN THE CLAIMS:

Please cancel claims 23 - 27 without prejudice, and add new claims 28 and 29 as follows:

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28. A method of determining the location of at least one magnetically-sensitive, electrically conductive sensing coil affixed to a medical device partially inserted into a body cavity within a navigational domain, comprising the steps of:

B.1 inducing within the at least one sensing coil a set of induced signal values corresponding to a set of location parameters, by sequentially generating within the navigational domain (i) a series of unidirectional magnetic fields, each characterized by a principal magnetic field component in one direction, and relatively smaller magnetic components in two other directions, and (ii) a series of gradient magnetic fields, each characterized by a first and second gradient field component in respective directions, and a relatively smaller third component in another direction;

wherein each of the induced signals is defined by an induced signal expression that functionally relates the induced signal to certain ones of the location parameters, such that the set of location parameters is determinable by sequentially solving individual signal expression groups each including certain ones of the induced signal expressions and sufficient to represent a subset of the location parameters.

29. A method according to claim 28, wherein the signal expression groups include (i) an orientation group including induced signal expressions each functionally related to a respective one of the unidirectional magnetic fields and an orientation of the sensing coil, and independent of a position of the sensing coil, and (ii) a position group including induced signal expressions each functionally related to a respective one of the gradient magnetic fields, the orientation of the sensing coil and the position of the sensing coil.

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REMARKS

Claims 1 - 22, 28 and 29 remain in the application. No new matter has been added.

An extension fee of \$390.00 pursuant to 37 CFR §1.136(a) for a reply within the second month is also enclosed. No additional costs are believed to be due in connection with the filing of this Amendment. However, should any fees be due, please charge our Deposit Account No. 50-1133. A copy of this page is enclosed for this purpose.